STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING

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April 16, 2003

Water Docket Staff
Water Docket (4101T)
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue NW
Washington, D.C. 20460

ATTENTION: Docket ID Number OW-2002-0050

Dear Sirs:

The Michigan Department of Environmental Quality (MDEQ) has prepared the attached comments in response to the January 10, 2003, "Advanced Notice of Proposed Rulemaking on Definition of Waters of the United States" (ANPRM). We understand the purpose of the ANPRM to be the gathering of information to assist the federal resource agencies in the development of regulations regarding the correct interpretation of the Clean Water Act (CWA) jurisdiction in light of the Supreme Court decision in *Solid Waste Agency of Northern Cook County (SWANCC) v. U.S. Army Corps of Engineers (USACE).*

We support the efforts of the U.S. Environmental Protection Agency (USEPA) and the USACE to clarify the impact of the *SWANCC* decision, to the extent that the limited scope of this decision is recognized by the agencies. The Supreme Court indicated that an "isolated" pond may not be regulated by the USACE solely due to the presence of migratory birds. However, this decision should not be construed to invalidate the CWA's recognition of the multiple connections between various components of aquatic ecosystems that together serve to maintain the physical, chemical, and biological integrity of the waters of our Nation.

Unfortunately, the guidance attached to the ANPRM directs federal agency staff to seek formal approval from their USACE headquarters prior to asserting jurisdiction over any "isolated, intrastate, non-navigable waters." We believe that action in effect removes federal protection from many waters that are integral components of aquatic ecosystems that are, in fact, protected under the CWA. The basis for this conclusion is discussed in detail in our comments.

In Michigan, the effect of this guidance could be to remove federal protection from an estimated 930,856 acres of wetlands that are not physically connected to lakes or streams. This acreage represents approximately 17 percent of Michigan's wetland resources. While the majority of these wetlands are regulated under state law, the bifurcation of "state/federal" and "state-only" protection may have significant programmatic implications, as discussed in our comments. Moreover, an estimated 271,534 acres of small wetlands determined to be "non-contiguous" under state law currently have virtually no protection under either state or federal law based on this guidance.

In addition, some 26,384 inland lakes and ponds in Michigan have no inlet or outlet, or have an inlet only, and are thus isolated from stream systems. The current federal guidance may also remove federal protection from these waters depending upon how the term "navigable" is defined (the guidance is not clear on this point).
Michigan is literally shaped by its water resources. Our economy is heavily dependent upon the vitality of the Great Lakes and their tributaries, up to their headwaters and including the full extent of the aquatic ecosystems defined by the watersheds of the Great Lakes tributaries. As discussed in our comments, the goals of the CWA will not be met if components of Michigan's aquatic ecosystems vital to their overall integrity are "de-regulated" based solely on their position in the landscape. Therefore, we urge that the current guidance be revised, and that regulations developed by the USEPA and the USACE recognize the ecological connections among wetlands and other relatively "isolated" waters, tributaries, and navigable streams and maintain to the greatest extent possible the current comprehensive protection of aquatic ecosystems envisioned by the CWA.

Finally, as noted in our comments, Michigan has been a very active partner with the federal resource agencies for many years. Michigan was, for example, the first state to assume administration of the Section 404 Permit Program. The Section 404 Permit Program currently offers a very high level of service to the public, ensuring that the goals of both the CWA and Michigan's wetland statute are met, and providing for timely coordination with several other state and federal programs. Although it may appear counterintuitive, we believe that a patchwork reduction in federal jurisdiction would significantly decrease the efficiency of the state/federal program, due to the need to differentiate between "federal" and "non-federal" wetlands, and impose much greater responsibility for coordination with other federal resource programs on the permit applicant. These issues are discussed in greater detail in our comments.

We appreciate the opportunity to provide information to the USEPA and the USACE in advance of rulemaking. I hope that you will not hesitate to contact me if you wish to discuss these issues. Should you have technical questions regarding the attached comments, please contact Ms. Peg Bostwick of the MDEQ's Geological and Land Management Division, at 517-335-3470 or at e-mail address (bostwicp@michigan.gov).

Sincerely,

Steven E. Chester
Director
517-373-7917

Enclosures: MDEQ comments submitted electronically
Attachments to comments via surface mail

cc: Mr. Tracy Mehan, USEPA, Headquarters
Ms. Donna Downing, USEPA, Headquarters
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MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

COMMENTS ON
THE ADVANCED NOTICE OF PROPOSED RULEMAKING ON
DEFINITION OF WATERS OF THE UNITED STATES

April 16, 2003

The January 10, 2003 "Advanced Notice of Proposed Rulemaking on Definition of Waters of the United States" (ANPRM) requests comments on several issues pertaining to the 2001 Supreme Court decision regarding federal authority over isolated waters in response to *Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers (SWANCC)*. This decision involved interpretation of the federal Clean Water Act (CWA) definition for waters of the United States as it pertains to Section 404 (dredged and fill material permit program) regulations. The ANPRM indicates that, while the *SWANCC* case involves only CWA Section 404, it may affect regulatory jurisdiction in other CWA programs, including Section 303, Section 311, Section 401, and Section 402. The ANPRM also includes guidance to field staff regarding interpretation of the *SWANCC* decision. This guidance, and any future rulemaking by the federal agencies, will have a major influence on the protection and management of Michigan's water resources.

Michigan is directly and significantly impacted by any change in federal regulations that ultimately impacts the quality of the Great Lakes, given that these waters are influenced not only by the actions of the citizens of Michigan, but by management of the water resources of neighboring states. Moreover, Michigan's glacial geology has produced an abundance of high quality lakes, streams, and wetlands in the interior of the state, including numerous waters that are relatively isolated from major river systems. Headwater streams that originate within our two peninsulas and flow to the Great Lakes are common.

We believe that protection of not only the Great Lakes, but the tributaries to the Great Lakes, and the aquatic ecosystems associated with those tributaries, is a matter of both state and national concern. A reduction in the scope of federal jurisdiction over waters of the United States in the wake of the *SWANCC* decision of the order discussed in the ANPRM, and reflected in the associated guidance to federal staff, would eliminate federal protection over a significant portion of Michigan's waters, as outlined below.

THE NEED FOR COMPREHENSIVE PROTECTION OF WATERS OF THE UNITED STATES

The necessity of protecting our nation's lakes, rivers, and wetlands on a watershed basis is widely recognized and accepted. A navigable waterway is typically part of a broader

aquatic ecosystem which includes tributaries to that waterway, a groundwater system, adjacent wetlands, and other waters within the watershed that affect the chemical, physical, and biological integrity of the larger system. The CWA will fail to meet its fundamental goals if it seeks to protect navigable interstate waters, but allows destruction of the peripheral components of the aquatic systems on which those waters depend.

Congress has long recognized that CWA goals extend beyond the shores of traditionally navigable waters. The December 1977 House Debate on the CWA amendments includes the following reference to the Section 404 permit program:

> "..the courts have upheld the responsibility – and the duty – of the corps to consider all matters affecting the general public interest when deciding whether or not to issue a permit. These matters include the environment, fish and wildlife, economics, flood control, navigation, and similar considerations. This meant, of course, that the corps could no longer confine the exercise of its regulatory authority to those bodies of water on which a substantial amount of navigation takes place."

The 1977 amendments recognized the necessity for broader regulation of waters and wetlands, while providing for a sharing of regulatory authority over waters other than traditionally navigable waters with the states through state assumption of the Section 404 permit program. The State of Michigan accepted this shared responsibility and has administered a state Section 404 permit program since 1984.

The Supreme Court decision in the *SWANCC* case has limited federal jurisdiction in the specific instance where the only basis for federal jurisdiction is the use of waters as habitat for migratory birds. Additional questions were raised, but not answered, in the *SWANCC* decision regarding other factors used to define the scope of federal jurisdiction. The answer for these questions should be consistent with the goal of the CWA itself. Simply stated, we believe that the CWA should continue to protect all waters that are a component of aquatic systems that cross state and national boundaries, or that play a role in interstate commerce, and that influence the chemical, physical, or biological integrity of those systems, whether or not there is a direct surface physical connection with navigable interstate waters.

We also agree that the states can and should play a significant role in carrying out the requirements of the Clean Water Act, and that state and federal requirements can be coordinated in a way that greatly minimizes the regulatory burdens imposed upon the public. However, given the fundamental importance of our freshwater resources to the public, it is essential that federal standards be maintained not only in Michigan but in states whose actions impact Michigan. The State of Michigan exists on two peninsulas in the center of the Great Lakes, and we are ever aware that the quality of those interstate and international waters that surround us is influenced not only by the actions of our own citizens, but by those of others states (and other nations). In addition, it is essential that the regulatory process established to protect these waters must be clear and direct enough to be understood and followed by the general public.

WETLANDS AND OTHER WATER RESOURCES IN MICHIGAN POTENTIALLY IMPACTED BY THE *SWANCC* DECISION AND SUBSEQUENT RULEMAKING

One of the stated purposes of the ANPRM is to "solicit additional information, data, or studies addressing the extent of resource impacts to isolated, intrastate, non-navigable waters". Because the terms "isolated" and "non-navigable" are undefined, this request may be answered in different ways. The following information includes our discussion of these terms.

Geographic Information System Evaluation of "Isolated" Wetlands in Michigan

A geographic information system (GIS) analysis was carried out to estimate the number and acreage of "isolated" wetlands potentially impacted by the *SWANCC* decision, or by subsequent federal rulemaking, in Michigan. National Wetland Inventory (NWI) maps were used to identify wetlands. Michigan Resource Information System (MIRIS) base data (digitized base map information from USGS 7.5' topographic quadrangles) hydrography layers were used to identify lakes, streams, and the Great Lakes shoreline. Accuracy of the estimates produced by this analysis are limited by a number of factors. Some small wetlands may not appear on the NWI maps due to scale, resulting in an under-estimate of wetland acreage; some changes in the wetland resource base have occurred since these maps were produced. In addition, because some small surface water connections (drain channels) may not appear on the MIRIS maps, the acreage of "non-adjacent" wetlands may be over-estimated in some locations.

1. All wetlands not adjacent to the Great Lakes or to inland lakes and streams. The federal agencies have expressed uncertainty regarding the scope of federal jurisdiction over wetlands that are intrastate, isolated, and non-navigable. To estimate the acreage of wetlands that may meet this definition in Michigan, we used the GIS analysis to calculate the number and acreage of wetlands that are not adjacent to (i.e. in contact with) any Great Lake, or inland lake or stream. We assumed that these "non-adjacent" wetlands would be considered "non-navigable" for purposes of this analysis, although open water emergent wetlands are often in fact navigable by canoe or small boat.

Total acreage of non-adjacent wetlands in Michigan: 930,856 acres
Number of non-adjacent wetlands in Michigan: 361,202

This acreage represents 16.7 percent of all wetlands in the state. Of this non-adjacent wetland acreage, 72 percent is located in Michigan's lower peninsula, and 28 percent is located in the upper peninsula. Note that much of this area is regulated under the Wetland Protection Part of Michigan's Natural Resources and Environmental Protection Act, P.A. 451 of 1994, as amended (NREPA). The scope of state jurisdiction is discussed further below.

2. All wetlands more than 500 feet from a lake or stream and more than 1000 feet from the Great Lakes. Michigan's Wetland Protection Part and associated administrative rules recognize that many wetlands are connected to lakes, streams, and the Great Lakes through groundwater. The state's statutory definition of "contiguous" assumes that any wetland within 500 feet of an inland waterway, or within 1000 feet of the Great Lakes is connected to that waterway by groundwater, unless the DEQ specifically determines otherwise (a circumstance which rarely occurs).

If one assumes that wetlands within this 500 or 1000 foot zone of groundwater connection are not isolated, the acreage of "isolated" or "non-contiguous" wetlands is as follows.

Total acreage of "non-contiguous" (500'/1000' buffer) wetlands: 580,134 acres
(Assumes that wetlands within 500' of a lake or stream or within 1000' of the Great Lakes are contiguous.)
Number of "non-contiguous" wetlands: 280,112

This acreage represents approximately 10.9 percent of all wetlands in Michigan. Approximately 27 percent of this acreage is located in the upper peninsula, and 73 percent in the lower peninsula. Note that many wetlands more distant than 500 feet from an inland lake or stream, and more than 1000 feet from the Great Lakes, may have a groundwater connection to these waterbodies. These distances were selected for regulatory purposes to avoid the necessity of a hydrologic evaluation in every permit application.

An additional evaluation of the ecological type of wetlands in this category was carried out, based on NWI maps. Approximately 309,336 acres or 53 percent of wetlands defined in Michigan regulations as "non-contiguous" are forested. An additional 77,167 acres or 13 percent are emergent types. Historically, the greatest loss in Michigan's resource base has been to forested wetlands.

Michigan's Wetland Protection Part provides for regulation of non-contiguous wetlands larger than 5 acres in size; therefore, a portion of these wetlands would continue to be protected under state law even if federal protection were withdrawn.

3. Wetlands less than five acres in size, and more than 500 feet from a lake or stream and more than 1000 feet from the Great Lakes. These wetlands are considered "non-contiguous" under state law, under the assumption that they may not have a groundwater connection with an inland lake or stream or with the Great Lakes. Currently, non-contiguous wetlands smaller than 5 acres are regulated under the Wetland Protection Part only under a provision that allows the DEQ to take discretionary authority over a wetland determined to be "essential to the preservation of the resources of the state".

Given that this provision allowing discretionary jurisdiction is not widely used, these areas would not, in most instances, be protected under either state or federal law if federal protection is withdrawn. On the other hand, if all of these smaller non-contiguous wetlands were clearly regulated under Section 404, we assume based on previous comments from Region 5 EPA staff that the State of Michigan would also be required to take jurisdiction over these areas in order to maintain a state Section 404 program that is consistent with federal requirements. Therefore, these are the waters most directly affected by the *SWANCC* decision in the State of Michigan.

Total acreage of non-contiguous wetlands less than 5 acres: 271,534 acres
(Assumes that wetlands within 500' of a lake or stream, or within 1000' of the Great Lakes are contiguous.)
Number of non-contiguous wetland less than 5 acres: 255,841

This category of wetlands represents approximately 4.9 percent of all wetlands in Michigan. Approximately 16 percent of this wetland acreage is located in the upper peninsula, and 84 percent is located in the lower peninsula. Again, the dominant ecological type is forested.

Estimate of "isolated lakes and ponds" in Michigan

Given that the *SWANCC* ruling is based on a question of jurisdiction over isolated ponds (not wetlands), the question of federal jurisdiction over these types of waters remains a significant issue. The overall water quality of Michigan's inland lakes is not exceeded anywhere in the nation. These resources not only provide significant fish and wildlife habitat, but represent one of the foundations of the state's tourism economy. The quality of Michigan's inland lakes is due in part to their glacial origins, and numerous lakes in the state are kettle type lakes without an inlet or an outlet. Other lakes are fed by small streams, but do not have any permanent outlet connecting them with a navigable stream system.

Almost all lakes and ponds are considered "navigable" by small watercraft. Most also have significant economic values tied to associated residential and recreational development and use. For purposes of this analysis, we considered only their physical connections to other waters, ignoring "navigability" and other related factors.

To determine the number of "isolated" lakes and ponds in Michigan, we relied upon an existing inventory, Michigan Lakes and Ponds, C.R. Humphrys et al, Michigan State University Department of Resource Development, 1965. That document provided the following statistics:

Number of lakes and ponds in Michigan with no inlet or outlet:	**18,864**
Number of lakes and ponds in Michigan with an inlet only:	**7,520**
Total number of lakes and ponds that may be considered "isolated":	**26,384**

Ecological types of wetlands potentially impacted

The Michigan Natural Features Inventory (MNFI) has provided information regarding wetland community types that frequently do not have a physical surface water connection with other waters of the state. Regulations that reduce federal protection of "isolated" wetlands would have the greatest impact on these community types. Unfortunately, many of the natural wetland community types that are relatively rare or imperiled on a state or global scale, or that support relatively rare plant or animal species, frequently occupy "isolated" positions in the landscape.

Note that these communities are named based on the MNFI wetland classification used in Michigan; inclusion of the term "lakeplain" indicates that the community exists in an area that was inundated by the Great Lakes in a previous geological period. Other communities may occur in some proximity to the Great Lakes or to other waterbodies, but may not necessarily be connected to them.

The MNFI and The Nature Conservancy have developed a ranking system for Natural Community Types to describe the relative rarity of these systems on a statewide (S) and global (G) scale. These ranks can generally be described as follows:

G1/S1 = critically imperiled globally / on a statewide basis (5 or fewer occurrences)
G2/S2 = imperiled globally / on a statewide basis (6 to 20 occurrences)
G3/S3 = rare globally / on a statewide basis
G4/S4 = apparently secure globally / on a statewide basis
G5/S5 = demonstrably secure globally / on a statewide basis

Relatively isolated wetland communities include both commonly occurring types, and wetland ecosystems that are quite rare in Michigan, and in some instances on a global scale. Wetland community types that frequently occur in a relatively isolated position in the landscape, and their MNFI rankings, include the following:

Community name	State rank	Global rank
Emergent marsh	S4	G5
Northern Wet Meadow	S4	G4G5
Southern Wet Meadow	S3	G4?
Inland Salt Marsh	S1	G1
Intermittent Wetland (Boggy Seepage Wetland)	S3	G3
Coastal Plain Marsh	S2	G2?
Interdunal Wetland	S2	G3?
Lakeplain Wet Prairie	S2	G2G3
Lakeplain Wet-mesic Prairie	S2	G2
Wet Prairie	S2	G3?
Wet-mesic Prairie	S2	G2G3
Prairie Fen	S3	G3G4
Bog	S4	G5
Poor Conifer Swamp	S4	G5
Rich Conifer Swamp	S3	G4
Hardwood-conifer Swamp	S3	G3G4
Southern Swamp	S3	G4?
Northern Shrub Thicket	S5	G5?
Southern Shrub-carr	S5	G5
Inundated Shrub Swamp	S3	G4
Wooded Dune and Swale Complex	S3	G3

Wetland communities in Michigan that frequently occupy a relatively isolated position in the landscape include several relatively rare ecological types, such as the wetland components of wooded dune and swale systems existing in proximity to, but not always immediately adjacent to the Great Lakes; lakeplain wet prairie remnants - remainders of what was once a dominant wetland type in portions of southeast Michigan and the Saginaw Bay region; and prairie fens, expressions of groundwater upwelling that almost by definition appear “isolated” on the ground’s surface, but that are in fact a component of a larger aquatic ecosystem.

Attachment A includes abstracts providing detailed descriptions of several of these community types.

Plant and animal species potentially impacted

Animals. Among the numerous animal species typically found in relatively isolated wetland communities are a number that are listed as endangered, threatened, or of special concern under the Endangered Species Part of Michigan's NREPA. MNFI staff have identified at least 41 rare, listed animal species that are dependent upon wetlands during all or part of their life cycle (4 amphibians, 17 birds, 5 reptiles, 14 insects, and 1 snail). An additional 10 species (5 birds, 5 insects) prefer wetlands habitat although they may survive in upland. Many other listed species make some use of wetlands, or have not been fully evaluated in this regard.

During the 1996 MNFI study, "Critical Non-Contiguous Wetlands of Michigan", a total of 37 species of rare (state listed) animals occurring specifically in wetlands that are non-contiguous were identified in 109 locations (Attachment B). Included are species such as the copperbelly watersnake, a reptile that is also listed under the Federal Endangered Species Act, and that depends upon isolated buttonbush wetlands for its survival.

Attachment C includes abstracts describing several of Michigan's rare animal species that rely on relatively isolated wetland pockets for their survival, including:

Common name	State rank	Global rank
Blanchard's cricket frog	S2S3	G5
Mitchell's satyr butterfly	S1	G1G2
Spotted turtle	S2	G5
Blanding's turtle	S3	G4
King rail	S1	G4G5

Plants. A large number of rare plants listed as endangered, threatened, or of special concern under the Endangered Species Part of Michigan's NREPA are typically found in wetland communities that tend to occur in isolated positions in the landscape. Records of these species are extensive. The 1996 MNFI study of "Critical Non-Contiguous Wetlands of Michigan" identified a total of 113 rare (state listed) plant species in 389 locations (Attachment D). Nine of these species exist in Michigan only in non-contiguous wetlands. Surveys since 1996 have added to these records.

Attachment E includes abstracts describing the habitat and ecology of several of these rare plant species, and their status. Included are some plants that, while rare in Michigan, may be relatively common elsewhere, and other species that are rare on a global scale, occurring only in small, isolated wetland pockets in this region. Abstracts provided include the following examples:

Common name	State rank	Global rank
Round-leaved orchid	S1	G5
Small white lady's slipper	S2	G4
Yellow pitcher plant	S1	G5
Hall's bulrush	S2	G2
Northern appressed clubmoss	S2	G2
Meadow beauty	S3	G5
Northern dropseed	S3	G5
Muhly grass	S2	G5

English sundew	S3	G5
Panicled screw-stem	S2	G5

PUBLIC BENEFITS PROVIDED BY MICHIGAN WETLANDS POTENTIALLY IMPACTED BY THE *SWANCC* DECISION AND SUBSEQUENT RULEMAKING

Wetlands and other waters that do not share a permanent surface boundary with traditionally navigable waters are nonetheless components of a larger aquatic ecosystem. Wetlands may be expected to have an immediate influence on the waters to which they are connected via groundwater systems, and to influence the physical, chemical, and biological integrity of waters with which they are associated in a watershed context. The Michigan Legislature has specifically recognized the public benefits provided by wetlands in Section 30302 of the Wetland Protection Part of the NREPA:

> "The legislature finds that:
> (a) Wetland conservation is a matter of state concern since a wetland of 1 county may be affected by acts on a river, lake, stream, or wetland of other counties.
> (b) A loss of a wetland may deprive the people of the state of some or all of the following benefits to be derived from the wetland:
> (i) Flood and storm control by the hydrologic absorption and storage capacity of the wetland.
> (ii) Wildlife habitat by providing breeding, nesting, and feeding grounds and cover for many forms of wildlife, waterfowl, and rare, threatened, or endangered wildlife species.
> (iii) Protection of subsurface water resources and provision of valuable watersheds and recharging ground water supplies.
> (iv) Pollution treatment by serving as a biological and chemical oxidation basin.
> (v) Erosion control by serving as a sedimentation area and filtering basin, absorbing silt and organic matter.
> (vi) Sources of nutrients in water food cycles and nursery grounds and sanctuaries for fish. …."

Virtually all of these benefits are provided by some wetlands that are not adjacent to navigable waters. The Wetland Protection Part requires that DEQ staff consider the extent to which the wetland in question provides these functions, along with other factors, when making a decision on a permit application.

Reduction of federal jurisdiction over wetlands that do not have a direct physical connection with navigable waters or their tributaries would result in a loss of protection of the public benefits listed by the Michigan legislature. In the context of the Clean Water Act goals, it would lead to impairment of the physical, chemical, and biological integrity of the nations waters, in that integral components of the nation's aquatic ecosystems would no longer be protected.

Impact of relatively isolated components of a watershed on interstate commerce and on the physical integrity of waters of the United States

- Many wetlands are connected to navigable waters on an intermittent basis. They may provide critical temporary and seasonal water storage, minimize downstream flooding, and maintain stream baseflow. The flood storage provided by wetlands is critical in many areas of Michigan. For example, hydrologic studies have shown that loss of more than 3 percent of the storage volume in wetlands in the Shiawassee Flats area of Saginaw County will produce a measurable increase in downstream flood stage. Other critical flood water storage areas include the Saginaw River, Rush Creek, Snake Creek, Clinton River Forks, and the Frank and Poet Drain Critical Flood Water Storage Areas. Within these areas, fills in floodplain areas are strictly limited.

  The economic cost associated with flood-prone areas is significant. Not only does flooding itself result in damage to property, but an increase in flood stage due to loss of storage capacity further restricts potential development and use of upland property in a community, and increases community costs for flood insurance.

- Wetlands and other waters are often connected to navigable waters through groundwater. This is particularly significant in regions of northern Michigan dominated by more porous, sandy soils. Overland runoff in these regions is limited; stream baseflow is relatively stable and maintained by groundwater discharge. This results in numerous high quality, coldwater streams. The overall integrity of these trout streams depends in part upon the storage and recharge of water from headwater wetlands.

  The Wetland Protection Part administrative rules presume that there is a groundwater connection between a wetland and an inland lake or stream within 500 feet, or with the Great Lakes if the shore is within 1000 feet of the wetland. Although the Administrative Rules provide for a determination by the DEQ that there is no groundwater connection, this finding has rarely been made.

Impact of relatively isolated components of a watershed on interstate commerce and on the chemical integrity of waters of the United States

- The Michigan Legislature has recognized the role of wetlands protecting the quality of downstream waters through filtration and processing of pollutants found in runoff, and in nutrient cycling (as noted above). In a watershed context, non-adjacent wetland pockets can permanently retain overland runoff, in some instances providing greater protection from nutrient and sediment pollutant loads than even riparian marshes that cycle nutrients but do not permanently retain them.

  In addition, as local units of government become more cognizant of stormwater management requirements, the benefits of wetland protection and “green engineering” as alternatives to high cost engineered infrastructure for stormwater storage and management are becoming more apparent. The value of the wetland component of the state’s watersheds is increasingly recognized in land use planning

at the regional and local level.

- Michigan supports extensive peatlands, particularly in the northern portion of the state. Northern peatlands have been shown to be a significant location for carbon sequestration; per unit area, peatlands have the largest soil carbon stocks in the world. In addition, peatlands also naturally store many other pollutants. However, when peatlands are altered for agricultural use or peat extraction, the drainage and oxidation of these systems can release to navigable waters significant quantities of heavy metals and other pollutants that have been accumulated and sequestered in the peat for extended periods.

  Peatlands can have significant economic values when used for the production of specialty agricultural products, or for the extraction and sale of peat itself. Given the need to balance the inherent ecological values of fen, bog, and other peatland systems, the potential economic values associated with the use of these systems, and the potentially significant chemical impact on air and water quality resulting from the alteration of these systems, weighing of these factors under state and federal permitting programs is appropriate. Specific wetlands in Michigan have been used as a source of peat to supply interstate markets, both with *Sphagnum* and reed-sedge peat. The regulation of peat extraction operations has typically been a matter of both state and federal concern.

Impact of relatively isolated components of a watershed on interstate commerce and on the biological integrity of waters of the United States

- Relatively isolated lakes, ponds, and wetlands support many species that may spend a portion of their life cycle in navigable interstate waters, but rely on the protection of more isolated habitats for survival. Many amphibian species, for example, do not reproduce successfully in waters that are inhabited by fish, which prey upon eggs and larvae. Not only can loss of habitat necessary for a portion of the life cycle lead to a loss of the species, but pollution of the non-adjacent habitat can have an adverse impact on the species. The habitat of these species is, in essence, an aquatic ecosystem that includes interrelated “navigable” and “isolated” components.

- Relatively isolated wetland communities also provide habitat for furbearers, waterfowl, and game species that make a significant contribution to Michigan’s economy. For example, although whitetail deer are not typically thought of as “wetland” species, coniferous forested wetlands in northern Michigan provide critical winter cover for this species.

- It is estimated that approximately 3,680,000 acres, or 21 percent of all timberland[1] in Michigan is forested wetland. These wetland timberlands contain approximately 15 percent of the wood volume in Michigan. Approximately 10 percent of the state’s forested wetland acreage, an estimated 355,000 acres, is “non-contiguous” under Michigan law (that is, more than 500 feet from a lake or stream and more than 1000 feet from the Great Lakes).

[1] Timberland is commercial forest land capable of producing ¼ cord per acre per year. (Michigan Department of Environmental Quality, personal communication)

The estimated fair market value of standing timber in forested wetlands is over $900 million, or around $250-300 per acre, and the economic impact of this timber on the forest products industry is even more significant.

PROGRAMMATIC ISSUES: BALANCING STATE AND FEDERAL REGULATORY PROGRAMS

Michigan was the first state, and remains one of two states, to administer the federal Section 404 permit program under the provisions of Section 404(g) of the Clean Water Act. Since Michigan's program was approved in October of 1984, the state has processed over 75,000 Section 404 permit applications in cooperation with the EPA. Like many other states, we have developed a cooperative approach to the federal Section 404 permit process that ensures recognition of both state and federal program goals, while avoiding duplication of agency services and minimizing the regulatory burden imposed upon the public.

It is entirely appropriate that states share the responsibility for management of aquatic resources that lie within their borders. Not only do these waters meet various direct needs of state residents, but their management and protection are inevitably interwoven with questions of land use, flood control, wellhead protection, and similar issues. States are particularly capable of addressing these issues. However, protection of the integrity of our nation's water resources is of such overarching importance that we also acknowledge the absolute necessity of meeting national water quality goals and maintaining national standards. Assumption of responsibility by the states does not mean that national standards should be eliminated for any categories of the nation's waters, or for integral components of an aquatic ecosystem. We are also concerned that wetlands located in other states which may influence the Great Lakes and other aquatic and wildlife resources in Michigan remain fully protected by federal regulations.

A significant reduction in the scope of federal jurisdiction would have additional consequences for states administering a Section 404 program, in that it would eliminate mechanisms used to provide for coordination with other federal programs, and introduce a significant degree of confusion and uncertainty into a program whose structure is currently straightforward and predictable, as discussed below.

Public understanding of Clean Water Act jurisdiction

The pre-*SWANCC* Section 404 program provided for relatively comprehensive protection of aquatic ecosystems, and the scope of jurisdiction was reasonably clear to the public, with the most controversial aspect of defining jurisdiction being the delineation of wetlands. Improved mapping of wetland areas and increased knowledge of wetland resources at the local level has decreased the controversy surrounding identification of wetland areas.

Maintaining the same degree of public clarity regarding federal jurisdiction in the post-*SWANCC* regulations could be more difficult if a decision regarding jurisdiction hinges on multiple factors. In addition to delineating wetland boundaries, the owner could have to determine whether it is "adjacent to" or "isolated from" a water that may or may not be

"navigable". A separate determination of interstate commerce values would multiply public uncertainty as to whether a given parcel is, indeed, a regulated wetland under federal law. Since 1979, Michigan's wetland protection statute has provided the DEQ with discretionary authority to assume jurisdiction over a small "non-contiguous" wetland that it determines to be "essential to the preservation of the natural resources of the state". In practice, making this determination, notifying the current property owner, and developing a record of the decision that will be available to all other agencies and all subsequent property owners has proven cumbersome and, to date, largely unworkable. Based on our experience, we doubt whether case by case determination of federal jurisdiction based on a group of complex factors will prove any more successful.

Practical impacts of reduced federal jurisdiction on Michigan's Section 404 Program

As discussed above, elimination of federal jurisdiction over "non-adjacent" wetlands in Michigan would impact almost 17 percent of the state's wetlands, almost a million acres in total. Although the majority of these wetlands would still be protected under the Wetland Protection Part of Michigan's NREPA, bifurcation of the program into a "state/federal" and a "state-only" permit program would have definite negative consequences.

In Michigan, the 404 Program is a state/federal partnership that provides a network of services to the permit applicant in a highly efficient manner. Although the typical permit applicant files a single application with the state, the project is reviewed for compliance with both state and federal permit requirements; a site inspection is typical. In addition, screening is carried out to determine whether there may be impacts to rare, listed state or federal species, and if necessary coordination with the Federal Endangered Species Act program is carried out; a Section 401 water quality consistency determination is provided; a decision regarding consistency with Michigan's Coastal Zone Management Program is made; the project is screened for potential impacts to national historic sites; the potential need for floodplain permits is determined; and various other coordination requirements are met. Under state law, decisions on wetland permit applications must be completed within 90 days of receipt of a completed application (or after a hearing, if one is held); most decisions require less time. The process is currently so seamless that most permit recipients are likely to be unaware that these services have been provided.

If federal jurisdiction is eliminated, then coordination with other federal programs would also be eliminated. A permit applicant would be individually responsible for determining whether federal Endangered Species Act permits are required, and would be responsible for carrying out any necessary consultation directly with the U.S. Fish and Wildlife Service under Section 10 of the Endangered Species Act, an extremely cumbersome process. Similarly, the applicant would be individually responsible for coordination with other federal programs. For a permit application impacting both navigable waters remaining under federal jurisdiction, and "isolated" waters under a "state-only" jurisdiction, the regulatory process could entail (1) a "super-delineation" to determine where federal jurisdiction begins and ends; (2) a permit carrying both state and federal authority over activities impacting "navigable" waters, and providing a nexus to other federal programs, and (3) a state-only permit with state-only conditions, with the permit applicant being responsible for coordination with other federal entities in areas

covered by that permit. This is clearly not an improvement in the regulatory process from the applicant's point of view.

Overall, the Michigan DEQ would be responsible for determining, on a case by case basis:

- When a permit application involves "waters of the United States", and coordination with the EPA and other federal agencies is required;

- What unauthorized impacts to lakes, streams, and wetlands are also violations of federal law.

- What impacts should be reported to the EPA as "Section 404" impacts.

Michigan currently processes 5000 – 6000 Section 404 permit applications annually. Given the strict time limits allowed in Michigan for permit processing, any uncertainty that results in any significant delay in permit processing, or in required federal coordination, is unacceptable.

The Clean Water Act provides an effective mechanism for coordination of state and federal roles in the management and protection of the nation's waters. The efficiency of this process relies to a great extent on the clarity of federal requirements. If federal regulation of aquatic ecosystems becomes a patchwork, protecting some components and not others, this mechanism will be significantly disrupted. Likewise, federal guidance that requires a complex, technical, case-by-case evaluation to determine whether or not a given wetland is under federal jurisdiction should be avoided.

Potential impact on state water programs other than Section 404

Jurisdiction for Michigan's Section 303, 401, and 402 programs is provide by statute (Part 31, Water Resource Protection of the NREPA) and rules. The Part 31 definition for "waters of the state" is "groundwaters, lakes, rivers, and streams and all other watercourses and waters within the jurisdiction of the state and also the Great Lakes bordering the state." Michigan's water quality standards R 323.1044 defines "surface waters of the state" as all of the following, but not including drainage ways and ponds used solely for wastewater conveyance, treatment, or control:

(i) The Great Lakes and their connecting waters.
(ii) All inland lakes.
(iii) Rivers.
(iv) Streams.
(v) Impoundments.
(vi) Open drains.
(vii) Other surface bodies of water within the confines of the state.

The definitions within Part 31 and the water quality standards give the Department authority for comprehensive protection of state surface waters, including protection of intermittent and ephemeral tributaries and wetlands. While the Department believes that this authority would continue in spite of revised interpretations at the federal level, it is likely that the jurisdiction of the state definitions would be challenged.

In summary, we are concerned with the possible repercussions of the *SWANCC* decision on the ability of the Department to protect waters of the state as presently interpreted for Michigan's Section 303, 401, and 402 programs. We encourage clarification and addition, as necessary, to the definition of waters of the United States in the CWA to prevent further erosion of jurisdiction.

SUMMARY: RESPONSE TO SOLICITATION FOR COMMENTS

1. Whether, and, if so, under what circumstances, the factors listed in 33 CFR 328.3(a)(3)(i)-(iii)… or any other factors provide a basis for determining CWA jurisdiction over isolated, intrastate, non-navigable waters?

We believe that jurisdiction over waters which may be described as "isolated, intrastate, and non-navigable" should be determined first and foremost based on the extent to which such waters are components of a larger aquatic ecosystem, and influence the chemical, physical, and biological integrity of that larger aquatic ecosystem. These comments have provided examples of the influence of waters that occupy a relatively isolated position in a watershed on the navigable waters with which they are ecologically associated.

We urge that the diverse economic values associated with wetlands and other relatively "isolated" waters be fully recognized when considering influence on interstate and foreign commerce. The Michigan Legislature has specifically recognized the economic, as well as environmental benefits accruing from wetland protection, including flood and storm control, protection and recharge of groundwater resources, pollution prevention and erosion control, timber production, and potential production of specialty agricultural products, in addition to their inherent ecological values. Finally, the quality of the state's waters are essential to maintenance of Michigan's important tourism economy.

Taking these factors into account, we believe that the federal CWA regulations must protect all components of aquatic ecosystems that extend across state boundaries, or that influence interstate commerce, and that contribute to the chemical, physical, and biological integrity of such systems, including waters that do not have a direct surface connection to navigable waterways. Waters should be excluded from federal jurisdiction in light of the *SWANCC* decision only in those instances where it can be actively demonstrated that chemical, physical, and biological connections with a larger aquatic system do not exist.

2. Whether the regulations should define "isolated waters" and if so, what factors should be considered in determining whether a water is or is not isolated for jurisdictional purposes?

The primary question to be answered in defining "waters of the United States" is whether the waters in question are part of a larger aquatic system, and influence in a meaningful way the physical, chemical, and biological integrity of that system. If these factors are appropriately applied, the question of whether or not a wetland or other water has a direct physical connection with a navigable stream should not be of primary importance in defining "waters of the United States".

However, since the *SWANCC* decision, inconsistent definition of the term "isolated waters" has led to inconsistent regulation of the nation's waters by federal agency staff, and to public uncertainty as to the scope of federal authority. Therefore, we agree that additional guidance is necessary. We strongly recommend, however, that any future guidance or regulations continue to focus on definition of waters that <u>are</u> regulated under the CWA. The term "isolated waters" should be interpreted very narrowly, in keeping with the narrowness of the *SWANCC* decision itself. Regulations or guidance should clarify that the components of aquatic systems that interact through various physical, chemical, and biological connections to maintain the ecological integrity of waters of the United States are, in fact, a part of those waters, and are <u>not</u> "isolated" from those waters.

3. Whether any other revisions are needed to the existing regulations on which waters are jurisdictional under the CWA.

We believe it to be self-evident that tributaries to navigable waters should continue to be fully protected under Section 404 and other provisions of the Clean Water Act. The small tributaries forming the headwaters of streams that ultimately lead to the Great Lakes can provide habitat for sensitive aquatic species; Michigan's native stream fish, including brook trout, are found in such waters. In the stream continuum, the headwaters are the primary source of food for the reaches below. Adjacent wetland areas help to maintain baseflow and water quality, and provide nutrient inputs. The discharge of pollutants to these tributaries inevitably degrades downstream waters. To remove protection from these waters would be equivalent to protecting the heart of an organism while destroying its circulatory system.

Finally, we recommend that the definition of waters of the United States be included in both the Section 303 and 401 regulations to avoid the ambiguity associated with the simplified definition for navigable waters included in the CWA. This definition should be comparable to that for Sections 402 and 404 of the CWA.